

- means (6) for condensing at least partially the vapors leaving said first stripping unit (2) and for recycling (24) a first portion of carbamate in aqueous solution to said reactor (1) ;

-a recovery section (3, 4, 7, 8) of a flow comprising urea and residual carbamate in aqueous solution leaving said first stripping unit (2) for separating the urea produced in the reactor (1) from a second portion of carbamate in aqueous solution;

characterized in that it comprises:

B1 - a second stripping unit (9) external to said recovery section (3, 4, 7, 8) for subjecting at least part of said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to a treatment of partial decomposition;

- means (26) for feeding said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to said second stripping unit (9);

- means for condensing at least partially the vapors leaving said second stripping unit (9) and of recycling a third portion of carbamate in aqueous solution to said reactor (1).

11. (Amended) Method for modernizing a plant for urea production of the type comprising:

B2 - a urea synthesis reactor (1) ;

- a first stripping unit (2) for subjecting a reaction mixture leaving said reactor (1) to a treatment of partial decomposition of the carbamate and partial separation of the free ammonia in aqueous solution present in said mixture;

- means (6) for condensing at least partially the vapors leaving said first stripping unit (2) and of recycling a first portion of carbamate in aqueous solution to said reactor (1) ;

-a recovery section (3, 4, 7, 8) of a flow comprising urea and residual carbamate in aqueous solution leaving said first stripping unit (2) for separating the urea produced in the reactor (1) from a second portion of carbamate in aqueous solution;

characterized in that it comprises the steps of:

- providing a second stripping unit (9) external to said recovery section (3, 4, 7, 8) for subjecting at least part of said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to a treatment of partial decomposition;

B2 - providing means (26) for feeding said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to said second stripping unit (9);

- providing means for condensing at least partially the vapors leaving said second stripping unit (9) and of recycling a third portion of carbamate in aqueous solution to said reactor (1).

12. (Amended) Method for modernizing a plant for urea production of the type comprising:

- a urea synthesis reactor (1) ;

- a first stripping unit (2) for subjecting a reaction mixture leaving said reactor (1) to a treatment of partial decomposition of the carbamate and partial separation of the free ammonia in aqueous solution present in said mixture;

- means (6) for condensing at least partially the vapors leaving said first stripping unit (2) and of recycling a first portion of carbamate in aqueous solution to said reactor (1) ;

-a recovery section (3, 4, 7, 8) of a flow comprising urea and residual carbamate in aqueous solution leaving said first stripping unit (2) for separating the urea produced in the reactor (1) from a second portion of carbamate in aqueous solution;

characterized in that it comprises the steps of:

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- providing a second stripping unit (9) external to said recovery section (3, 4, 7, 8) for subjecting at least part of said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to a treatment of partial decomposition;
 - providing means (26) for feeding said second portion of carbamate in aqueous solution obtained in said recovery section (3, 4, 7, 8) to said second stripping unit (9);
 - providing means for feeding (32) the vapors leaving said second stripping unit (9) to said means for condensing (6) the vapors leaving said first stripping unit (2).
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